

**Remarks**

**I. Status of Claims**

Claims 9-13 and 21-30 are pending.

Withdrawn claims 31-35 have been canceled without prejudice.

Claims 36-38 has been added.

**II. Claim rejections under 35 U.S.C. § 102**

The Examiner has rejected claims 9, 22, 23, and 25-29 under 35 U.S.C. § 102(e) over Domes (U.S. 6,006,807).

**A. Independent claim 9**

Independent claim 9 recites:

9. A bookbinding system, comprising:
- a sheet binder configured to bind two or more sheets into a text body having an exposed spine bounded by two exposed side hinge areas;
  - an adhesive dispenser configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of the text body; and
  - a cover binder configured to bind the cover to the side hinge areas of the text body by applying pressure to the cover.

**1. The Examiner's position**

The Examiner has stated that:

Regarding claim 9, Domes et al. discloses a bookbinding system, comprising: a sheet binder 21 (see page 2, lines 59-63) configured to bind two or more sheets into a text body having an exposed spine bounded by two exposed side hinge areas; an adhesive dispenser 14 configured to apply a solid pressure sensitive adhesive film 1c/1d between a cover and the side hinge areas of the text body 22; and a cover binder 21

configured to bind the cover to the side hinge areas of the text body by applying pressure to the cover (see page 4, lines 1-5).

In this rejection of claim 9, the Examiner has taken the position that the interior sheets of the unbound sheet stack 22 (i.e., the sheets of the sheet stack 22 excluding the top and bottom exterior sheets) correspond to the "text body" recited in claim 9 and that the top and bottom exterior sheets of the unbound sheet stack 22 correspond to the "cover" recited in claim 9. This interpretation, however, is inconsistent with the plain meaning of "text body" recited in claim 9. In particular, claim 9 defines the "text body" as the result of binding two or more sheets by the sheet binder. In Domes' approach the sheet binding apparatus 21 binds all of the sheets (i.e., the top and bottom exterior sheets and the interior sheets between the top and bottom sheets) into a bound stack of sheets using the strip 1c. That is, the result of binding two or more sheets by Domes' sheet binding apparatus 21 is the bound stack 22 of sheets including the top and bottom exterior sheets. Thus, contrary to the Examiner's interpretation, the interior sheet stack sheets alone (i.e., excluding the exterior sheets) cannot correspond to the "text body" recited in claim 9 because the result of binding two or more sheets by the sheet binding apparatus 21 is a bound sheet stack 22 that includes the top and bottom exterior sheets. Furthermore, in accordance with Domes' disclosure, the sheet stack 22 always includes top and bottom exterior sheets. Consequently, the interior sheets of the sheet stack 22 between the top and bottom exterior sheets are never bounded by two exposed side hinge areas, as recited in claim 9.

For these reasons, the Examiner's reliance on a correspondence between the sheets of the unbound sheet stack 22 excluding the exterior sheets and the "text body" recited in claim 9 is improper and his rejection of claim 9 under 35 U.S.C. § 102(e) over Domes should be withdrawn.

The Examiner's rejection of claim 9 over Domes also should be withdrawn for the following additional reasons.

2. Domes does not disclose "an adhesive dispenser configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of the text body"

In his rejection of claim 9, the Examiner has taken the position that the strip transport unit 14 corresponds to the "adhesive dispenser" and that the strips 1c, 1d correspond to the "pressure sensitive adhesive film." This position should be reversed for the following reasons.

First, a “pressure sensitive adhesive” is a well known term of art that refers to “Adhesive materials which bond to adherend surfaces at room temperature immediately as low pressure is applied or which require only pressure application to effect permanent adhesion to an adherend” (About.com, CRC Press LLC., [http://composite.about.com/library/glossary/p/bldef-p4260.htm\(1989\)](http://composite.about.com/library/glossary/p/bldef-p4260.htm(1989))). In accordance with Domes’ teachings, the strips 1c, 1d are “coated with a fusion adhesive on one of their surfaces” (col. 2, line 12). In accordance with its plain meaning, the term “fusion” refers to “the act or process of liquefying or rendering plastic by heat” (Merriam-Webster’s Collegiate Dictionary, 10<sup>th</sup> Ed.). The fusion adhesive on the strips 1c, 1d only bonds to a surface after being melted by heating elements (see col. 3, lines 65-67). Consequently, the Examiner’s position is contrary to the plain meaning of the term “pressure sensitive adhesive.” The Examiner’s position also is contrary to the definition of the term “pressure sensitive adhesive” that is provided in the specification (page 9, lines 7-11):

As used herein, “pressure sensitive adhesives” refer to a class of adhesive compositions that are applied with pressure and generally do not undergo a liquid to solid transition in order to hold materials together. Pressure sensitive adhesives may be solvent-free natural or synthetic resins characterized by the rapid wetting of a surface to form an adhesive bond upon contact with the surface under pressure.

Second, in order to be consistent with the improper construction on which the Examiner’s rejection of claim 9 is based, the strip transport unit 14 would have to apply the strip 1c between the exposed side hinge areas of the interior sheets of the sheet stack 22 and the top and bottom exterior sheets of the sheet stack 22. The strip transport unit 14, however, does not operate in this way. Indeed, the side hinge areas of the interior sheets of the sheet stack 22 are never exposed during the binding process. In addition, the strip transport unit 14 applies the strip 1c only against the spine area of the unbound sheet stack 22 (see col. 3, lines 59-63). Thus, even under the Examiner’s unreasonable and improper interpretation of claim 9, Domes does not disclose an adhesive dispenser configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of the text body.

For at least this additional reason, the Examiner’s rejection of claim 9 under 35 U.S.C. § 102(e) over Domes should be withdrawn.

3. Domes does not disclose a "cover binder configured to bind the cover to the side hinge areas of the text body by applying pressure to the cover"

In his rejection of claim 9, the Examiner has taken the position that the binding apparatus 21 corresponds to the "cover binder." This position should be reversed for the following reasons.

First, the binding apparatus 21 is not configured to bind the cover to the side hinge areas of the text body. In order to be consistent with the improper construction on which the Examiner's rejection of claim 9 is based, the binding apparatus 21 would have to be configured to bind the top and bottom exterior sheets of the sheet stack 22 to the side hinge areas of the interior sheets of the sheet stack 22. The strip 1c, however, is applied only against the spine of the sheet stack 22 and the exposed side hinge areas of the top and bottom exterior sheets of the sheet stack 22 (see col. 3, line 61 through col. 4, line 5). Therefore, the exterior sheets of the sheet stack 22 are not bound to the exposed side hinge areas of the interior sheets of the sheet stack 22. Instead, the top and bottom exterior sheets are bound to the spine edges of the interior sheets of the sheet stack 22. Thus, even under the Examiner's unreasonable and improper interpretation of claim 9, Domes does not disclose a cover binder configured to bind the cover to the side hinge areas of the text body.

Second, the binding apparatus 21 is not configured to bind the cover by applying pressure to the cover. In accordance with Domes' teachings, the application of pressure alone is insufficient to bind the spine edges of the sheet stack 22. Instead, the binding apparatus must melt the fusion adhesive on the strip 1c in order to bind the spine edges of the sheet stack 22 (see col. 3, lines 65-67).

Third, in his rejection of claim 9, the Examiner has asserted that Domes' sheet binding apparatus 21 corresponds to both the "sheet binder" and the "cover binder" that are recited in claim 9. The Examiner's attempt to meet these two elements of claim 9 with Domes' sheet binding apparatus 21, however, effectively reads one of these claim elements out of the claim. For this additional reason, the Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) (see MPEP § 2143.03).

4. Conclusion

For at least these reasons, the Examiner's rejection of claim 9 under 35 U.S.C. § 102(e) over Domes should be withdrawn.

B. Claims 22, 23, and 25-29

Each of claims 22, 23, and 25-29 incorporates the features of independent claim 9 and therefore is patentable over Domes for at least the same reasons explained above. Each of claims 22, 23, and 25-27 also is patentable over Domes for the following additional reasons.

Claim 22 has been amended and now recites that “the adhesive dispenser additionally applies the solid pressure sensitive adhesive film between the cover and the exposed spine of the text body, and the cover binder binds the cover to the spine of the text body by positioning the cover over the spine of the text body and applying pressure to the cover.” The Examiner has asserted that the binding apparatus 21 corresponds to the “cover binder” recited in claim 22. In accordance with the Examiner's position, the top and bottom exterior sheets of the sheet stack 22 correspond to the “cover” recited in claim 9. The binding apparatus 21, however, does not position any of the top and bottom exterior sheets of the sheet stack 22 over the spine of the sheet stack 22. For at least this additional reason, the Examiner's rejection of claim 22 under 35 U.S.C. § 102(e) over Domes now should be withdrawn.

Claim 23 incorporates the features of claim 22 and therefore is patentable over Domes for the additional reason described in the preceding paragraph.

Claim 25 recites that “the adhesive dispenser applies between the cover and the side hinge areas a solid pressure sensitive adhesive film that comprises a pressure sensitive adhesive composition laminated to a hot melt adhesive film.” The Examiner has stated that Domes discloses this feature in col. 4, lines 1-5. The cited section of Domes, however, merely discloses the operation and arrangement of the heating elements; this section does not disclose anything about the composition of the fusion adhesive coated strip. Domes does not even hint that the strips 1c, 1d include a pressure sensitive adhesive composition laminated to a hot melt adhesive film. To the contrary, based on Domes' teaching that the strips 1c, 1d consist of “strips coated with a fusion adhesive on one of their surfaces” (col. 2, lines 8-13), one skilled in the art reasonably would have concluded that the strips consist of some sort of non-adhesive backing (e.g., paper) coating with a single type of fusion adhesive (e.g., hot melt adhesive). Furthermore, one skilled in the art would not have had any basis for having a reasonable belief that Domes' strip feeding apparatus and sheet binding apparatus would have been capable of handling a solid pressure sensitive adhesive film of the type recited in claim

25. For at least this additional reason, the Examiner's rejection of claim 25 under 35 U.S.C. § 102(e) over Domes now should be withdrawn.

Claim 26 incorporates the features of claim 25 and therefore is patentable over Domes for at least the same reasons explained in the preceding paragraph. Claim 26 additionally recites that:

the adhesive dispenser applies the solid pressure sensitive adhesive film with the hot melt adhesive film in contact with the side hinge areas and the exposed spine of the text body;  
the sheet binder melts the hot melt adhesive film to bind the two or more sheets into the text body; and  
the cover binder binds the cover to the side hinge areas of the text body by disposing the cover over the text body and applying pressure to the cover to activate the pressure sensitive adhesive composition.

The Examiner has stated that Domes discloses these features in col. 3, line 65, through col. 4, line 5. The cited section of Domes, however, merely discloses that the heating elements first press the fusion adhesive coated sheet 1c into the spine of the sheet stack 22 and then applies pressure to the folded over portions of the fusion adhesive coated sheet in accordance with the prior art process described in the Background section of Domes. In this process, the binding apparatus 21 does not dispose a cover over the text body and apply pressure to the cover to activate a pressure sensitive adhesive composition. First, in accordance with the Examiner's construction of claim 26, the exterior sheets of the sheet stack 22 correspond to the "cover;" the binding apparatus 21, however, does not dispose the exterior sheets of the sheet stack 22 over the sheet stack 22. Second, the binding apparatus 21 applies pressure to the folded-over side of the strip 1c that is free of any fusion adhesive; the binding apparatus 21, however, does not apply pressure to the exterior sheets of the sheet stack 22 to activate a non-existent pressure sensitive adhesive composition. For at least this additional reason, the Examiner's rejection of claim 26 under 35 U.S.C. § 102(e) over Domes now should be withdrawn.

Claim 27 recites that "the cover binder contacts the side hinge areas to the applied solid pressure sensitive adhesive film." As explained above, the side hinge areas of the interior sheets of the sheet stack 22 between the top and bottom exterior sheets are never exposed and therefore there is no way for the binding apparatus 21 to contact these side hinge areas with the applied fusion adhesive coated strip 1c. Instead, the binding apparatus 21

contacts the strip 1c to the side hinge areas of the top and bottom exterior sheets of the sheet stack 22; in accordance with the Examiner's interpretation, however, these exterior sheets correspond to the "cover" not the "text body". For at least this additional reason, the Examiner's rejection of claim 27 under 35 U.S.C. § 102(e) over Domes now should be withdrawn.

### III. Claim rejections under 35 U.S.C. § 103

#### A. Claims 10 and 24

The Examiner has rejected claims 10 and 24 under 35 U.S.C. § 103(a) over Domes in view of Crathern (U.S. 3,939,513).

Each of claims 10 and 24 incorporates the features of independent claim 9. Crathern does not make-up for the failure of Domes to teach and suggest the features of independent claim 9 discussed above. Therefore, claims 10 and 24 are patentable over Domes and Crathern for at least the same reasons explained above in connection with independent claim 9.

In addition, the Examiner has stated that "Crathern III et al. teaches the application of adhesive film 55 in a series of spaced apart strips (see Figure 1) for the purpose of forming multiple hinges on the stack of sheets 105. Contrary to the Examiner's assertion, Crathern's binding method does not involve applying a solid pressure sensitive adhesive film to a cover in a series of spaced apart strips. Instead, Crathern describes "a system for binding of perforated sheets together through their perforations with at least one loop of flexible tape" (see abstract). The flexible tape is a thermoplastic polymer with end portions that are sealed by thermal fusion to form respective loops through the perforations (see col. 4, lines 66-67 and col. 6, lines 19-35).

Accordingly, neither Domes nor Crathern teaches or suggests anything that would have led one skilled in the art to modify Domes' fusion adhesive coated strip feeding apparatus to apply a solid pressure sensitive adhesive film to the cover in a series of spaced-apart strips. Indeed, modifying Domes' apparatus to apply multiple fusion adhesive coated strips to the top and bottom exterior sheets of the sheet stack 22 would not have served any useful purpose because the only ones of such strips that would have served any binding

function whatsoever would have been the strips that were attached to the spine of the sheet stack. For at least this additional reason, the Examiner's rejection of claims 10 and 24 under 35 U.S.C. § 103(a) over Domes and Crathern should be withdrawn.

B. Claims 11 and 12

The Examiner has rejected claims 11 and 12 under 35 U.S.C. § 103(a) over Domes in view of Sampson (U.S. 4,930,911).

Each of claims 11 and 12 incorporates the features of independent claim 9. Sampson does not make-up for the failure of Domes to teach and suggest the features of independent claim 9 discussed above. Therefore, claims 11 and 12 are patentable over Domes and Sampson for at least the same reasons explained above in connection with independent claim 9.

In addition, the Examiner has acknowledged that Domes "does not disclose wherein the adhesive dispenser comprises a plug-in cartridge housing. The Examiner has cited Sampson in an effort to make-up for this failure of Domes' teachings. Sampson, however, does not disclose an adhesive dispenser that includes a plug-in cartridge housing. Instead, Sampson discloses a computerized stamp printer that includes an imprinting tape in a confined cartridge (see abstract). The stamp printer is "for imprinting title, logo, author and other information on the cover or spine of a book, booklet, or the like, which is operable by personnel in the normal office environment" (col. 1, lines 10-15).

Since neither Domes nor Sampson teaches or suggests an adhesive dispenser that comprises a plug-in cartridge housing, no possible combination of these references possibly could teach or suggest such a feature. For at least this additional reason, the Examiner's rejection of claims 11 and 12 under 35 U.S.C. § 103(a) over Domes and Sampson should be withdrawn.

C. Claims 13 and 30

The Examiner has rejected claims 13 and 30 under 35 U.S.C. § 103(a) over Domes in view of Rossini (U.S. 5,261,996).



Each of claims 13 and 30 incorporates the features of independent claim 9. Rossini does not make-up for the failure of Domes to teach and suggest the features of independent claim 9 discussed above. Therefore, claims 13 and 30 are patentable over Domes and Rossini for at least the same reasons explained above in connection with independent claim 9.

In addition, the Examiner has acknowledged that Domes does not disclose an adhesive dispenser that includes a take-up spool configured to reel-in spent carrier ribbon on which a solid pressure sensitive adhesive film was disposed, as recited in claim 13. The Examiner has cited Rossini in an effort to make-up for this failure of Domes' teachings. In particular, the Examiner has stated that "Rossini teaches the use of a take-up spool 46 for the purpose of reeling in spent carrier ribbon 48." Contrary to the Examiner's statement, however, Rossini does not teach that the take-up spool reels in the web material 34, which serves as the carrier ribbon on which the adhesive is disposed. Instead, Rossini teaches that the take-up reel 46 is used to wind the waste strip of a protective release layer 48 that may be disposed on the adhesive side of the tape (see col. 8, lines 19-34).

Since neither Domes nor Rossini teaches or suggests an adhesive dispenser that includes a take-up spool configured to reel-in spent carrier ribbon on which a solid pressure sensitive adhesive film was disposed, no possible combination of these references possibly could teach or suggest such a feature. For at least this additional reason, the Examiner's rejection of claim 13 under 35 U.S.C. § 103(a) over Domes and Rossini should be withdrawn.

#### D. Claim 21

The Examiner has rejected claim 21 under 35 U.S.C. § 103(a) over Domes in view of Peleman (U.S. 6,036,229).

Claim 21 incorporates the features of independent claim 9. Peleman does not make-up for the failure of Domes to teach and suggest the features of independent claim 9 discussed above. Therefore, claim 21 is patentable over Domes and Peleman for at least the same reasons explained above in connection with independent claim 9.

In addition, the Examiner has stated that:

Domes et al. does not disclose wherein the adhesive dispenser applies the solid pressure sensitive adhesive film to the cover before contacting the side hinge areas of the text body.  
Therefore it would have been obvious to one having ordinary

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skill in the art at the time the invention was made to have combined the adhesive dispenser of Domes et al. with the method Peleman in order to have a binding system that allows for a convenient rearrangement of binding steps.


With this rejection, the Examiner has not explained how the teachings of Domes and Peleman would have been combined by one skilled in the art to arrive at the invention recited in claim 21. In addition, the Examiner's asserted motivation for combining these references (i.e., "in order to have a binding system that allows for a convenient rearrangement of binding steps") is not taught or suggested in either of the references. The Examiner therefore has not established a proper *prima facie* case of obviousness under 35 U.S.C. § 103 (see MPEP § 706.02(j)). For at least this reason, the Examiner's rejection of claim 21 under 35 U.S.C. § 103(a) over Domes in view of Peleman should be withdrawn.

#### IV. Conclusion

All of the pending claims are now in condition for allowance and should be allowed.  
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Respectfully submitted,

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